Serial No. 10/736,330 Amdt. dated April 8, 2005 Reply to Office action of January 28, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A micro-machined electromechanical sensor (MEMS) device, comprising a serpentine flexure comprising:

a plurality of spaced-apart elongated flexure members formed through the thickness of a substrate as substantially planar elements and being relatively narrow as measured crosswise to their longitudinal axes; and

a plurality of relatively short interconnecting members arranged crosswise to the longitudinal axes of the elongated flexure members and interconnecting opposite ends of alternate pairs of the elongated flexure members in a serpentine configuration, including first and last relatively short interconnecting members arranged crosswise to the longitudinal axes of respective first and last ones of the elongated flexure members and being structured for interconnecting the respective first and last elongated flexure members between relatively movable and immovable device components; and

means for internally-caging one or more of the spaced-apart elongated flexure members, the means for internally-caging comprising an extension formed on one end of one or more of the interconnecting members and extending a part of the distance between one of the members interconnecting one pair of the spaced-apart elongated flexure members and an end of a next adjacent member interconnecting a next adjacent pair of the spaced-apart elongated flexure members.

Claim 2 (cancelled)

Claim 3 (cancelled)

Claim 4 (original): The device of claim 1 wherein the plurality of spaced-apart elongated flexure members are resiliently flexible in a single direction that is substantially crosswise to their respective longitudinal axes.

Claim 5 (original): The device of claim 4 wherein one or more of the plurality of spaced-apart elongated flexure members is thicker than one or more others of the elongated flexure members as measured along the single direction that is substantially crosswise to their respective longitudinal axes.

Claim 6 (cancelled): The device of claim 4, further comprising a relatively stationary frame and a moveable proof mass that is suspended from the frame for substantially in-plane motion by a plurality of the serpentine flexures.

Claim 7 (cancelled): The device of claim 6 wherein at least one of the frame and proof mass further comprises a promontory mass that is sized to span a part of the distance between an edge thereof and one of the crosswise interconnecting members.

Claim 8 (cancelled): The device of claim 7, further comprising a plurality of capacitive pickoff sensors formed between the proof mass and the frame.

Claims 9-20 (cancelled)

Claim 21: (new) A micro-machined electromechanical sensor (MEMS) device having a serpentine flexure, the serpentine flexure comprising:

a plurality of elongated flexure members each formed through the thickness of a substrate as substantially planar elements;

a relatively short interconnecting member arranged crosswise to the longitudinal axes of the elongated flexure members and interconnecting opposite ends of alternate pairs of the elongated flexure members in a serpentine configuration; and

a small mass extending a part of a distance between adjacent elongated flexure members.

Claim 22: (new) The device of claim 21 wherein one or more of the plurality of elongated flexure members is thicker than one or more others of the elongated flexure members.

Claim 23 (new): The device of claim 21, further comprising a relatively stationary frame and a moveable proof mass that is suspended from the frame by the serpentine flexure.

Claim 24 (new): The device of claim 23 wherein at least one of the frame and proof mass further comprises a promontory mass that is sized to span a part of the distance between an edge thereof and one of the elongated flexure members.

Claim 25: (new) The device of claim 21 wherein the small mass further comprises an extension formed on one end of the interconnecting member.

Claim 26 (new): The device of claim 25, further comprising a relatively stationary frame and a moveable proof mass that is suspended from the frame by the serpentine flexure.

Claim 27 (new): The device of claim 26 wherein at least one of the frame and proof mass further comprises a promontory mass that is sized to span a part of a distance between an edge thereof and one of the interconnecting members.

Claim 28 (new): The device of claim 26 wherein at least one of the interconnecting members further comprises an extension formed on one end of the interconnecting member and sized to span a part of a distance between the interconnecting member and an edge of an adjacent one of the frame and proof mass.

Claim 29: (new) A micro-machined electromechanical sensor (MEMS) device having a serpentine flexure, the serpentine flexure comprising:

a pair of spaced-apart elongated flexures each formed through the thickness of a substrate as substantially planar elements;

an interconnecting member formed through the thickness of the substrate and interconnecting adjacent ends of the elongated flexures in a serpentine configuration; and a small mass extending a part of a distance between the pair of elongated flexures.

Claim 30: (new) The device of claim 29 wherein the interconnecting member further comprises a relatively short interconnecting member as compared to at least one of the elongated flexures.

Claim 31: (new) The device of claim 30 wherein the small mass further comprises a small mass formed at one end of one of the elongated flexures opposite from the interconnecting member.

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Claim 32 (new): The device of claim 31, further comprising a relatively stationary frame and a moveable proof mass that is suspended from the frame by the serpentine flexure.

Claim 33 (new): The device of claim 32, further comprising two or more adjacent pairs of spaced-apart elongated flexures, and two or more interconnecting members,

one of the interconnecting members interconnecting each pair of spaced-apart elongated flexures at first ends thereof; and

one of the interconnecting members interconnecting adjacent elongated flexures of adjacent pairs of spaced-apart elongated flexures at second ends thereof.

Claim 34 (new): The device of claim 33 wherein the small mass further comprises a first small mass formed at one end of one of the elongated flexures opposite from the interconnecting member; and

further comprising a second small mass formed at one end of the elongated flexure opposite from the first small mass, the second small mass extending toward the first small mass.